

Multiple-cell cavity for axion dark matter search

Thursday 18 May 2017 12:20 (10 minutes)

In axion dark matter searches using microwave cavity detectors, multiple-cavity design is typically considered to make an optimal use of a given magnet volume to explore higher frequency regions. We introduce a new idea, referred to as multiple-cell cavity, which provides various benefits including larger volume usage, simpler experimental setup, and easier phase-matching mechanism. In this talk, the conceptual design of this new idea and experimental feasibility using a double-cell cavity are presented.

Primary author: YOUN, SungWoo (CAPP/IBS)

Presenter: YOUN, SungWoo (CAPP/IBS)

Session Classification: Session 12